Weather Event Simulator Case Study

Originating Office : WFO Houston/Galveston

Date of Case : 23 December 2002

Contacts : Lance.Wood@noaa.gov, Kent.Prochazka@noaa.gov Weather Event : Severe Weather - Bow Echo/Severe Thunderstorms

Learning Objectives : A portion of the severe weather episode of December 23, 2002, was

selected as a WarnGen and severe convection training exercise because it occurred in an environment supporting multiple severe weather threats. Additionally (or consequently) both the speed and character of this system also demanded articulate use of the WarnGen software to

issue accurate warnings.

: While it is possible to run this simulation solo, due to the number of warnings of which one must keep track, it is suggested that two

forecasters tackle this exercise together.

Available Data : All radar data for KHGX. Lowest elevation angle data for KCRP,

KEWX, KGRK, KLCH and KPOE

AWIPS model guidance fields.

: All AWIPS satellite imagery (CONUS and smaller scales).

: All AWIPS point data.

: All AWIPS redbook graphics.

Time Period of Data: 1200 UTC Dec 23 to 0600 UTC Dec 24, 2002.

(Radar data from 2000 UTC Dec 23 to 0600 UTC Dec 24 only)

Type of Simulation : Virtual Reality Simulation -- Self Guided.

Completion Time : Two and one half to three hours.

Additional Materials : HTML copy of an overview of the pre-storm environment will be

loaded into a 2002Dec23/HTML directory and is also available in the HTML subdirectory on the DVD-ROM. The starting page is called

 $Overview_of_Pre\text{-}storm_environment.html$

: WordPerfect copies of the Simulation Guide, a Post Case Review and

the actual warnings issued by WFO HGX during the event will be loaded into a 2002Dec23/docs directory and are also available in the

docs subdirectory on the DVD-ROM.

Installation : Use the CaseInstaller.tcl script to install the case specifying one (1)

DVD, the appropriate directory (e.g., /data/awips) on the appropriate hard drive (e.g., /dev/sdb1). The case directory will be called

2002Dec23.

Special Instructions : This case includes localizations for WES versions 1.0, 1.1, 1.2 and

1.3.. Please "cd" to the 2002Dec23/localizationDataSets subdirectory and extract (zcat \mid tar -xvf -) the appropriate localization for your

version of the WES software.

: The case includes WES Scripting Language spotter reports which will appear if you are using Version 1.3 of the WES software. Simply

specify hgx-12-24-2002.wessl as the WESSL Script when running the

simulation.